

REMARKS

Claims 17 – 22 and 26-44 were submitted for examination. Claims 17-22 and 26-44 stand rejected under 35 U.S.C. 103 as being obvious over Haartssen et al. (WO 01 99384) in view of Mayor et al. (US Patent No. 6,859,463). Claim 21 has been amended to make the claimed subject matter more clear by incorporating the subject matter of Claim 22. Claim 22 has canceled accordingly. Claim 32 has been amended to delete a redundant element and Claim 44 has been amended to correct a typographical error. In addition, Claims 21 and 32 have been amended to correct dependence errors. None of these amendments incorporates new matter or requires a new search.

In view of the claim amendments herein and the following remarks, Applicant submits that all claims remaining in the case are in condition for allowance and that all other objections have been overcome.

As an initial matter, Applicant objects to the Examiner's ubiquitous use of the word "means" when paraphrasing the elements of Applicant's claims. Applicants do not present any "means plus function" claims, and reject any implication by the Examiner's use of the word "means" throughout the Office Action that any of the claims invoke 35 U.S.C. § 112, para. 6.

Regarding the claim rejections, Claims 17-21 and 26-44 -25 stand rejected under 35 U.S.C. 103 as being anticipated by Haartssen in view of Mayor.

Haartssen discloses an algorithm for selecting a packet type based on the condition of a wireless channel. In particular, Haartssen discloses an algorithm for selecting a Bluetooth packet type, from among packet types that vary in length and

encoding, based on the condition of a Bluetooth channel. The Office Action admits that Haartssen does not disclose “varying data transmission rate means [sic] responsive to error conditions.” (See Office Action, p. 5).

Mayor discloses selection of operational parameters for transmitting a signal (e.g., a message packet) over a communication channel of a network by first determining RF conditions on the communication channel from a received signal that has been transmitted over the communication channel. Mayor, Col. 3, ll. 27 – 30. The parameters to be selected may include data rate. Id., Col. 3, ll. 39 – 40.

The Office Action again has again failed to specifically enumerate claim numbers when setting forth the basis for the claim rejections. As was pointed out in the prior response filed with the RCE on November 17, 2004, such approach causes the Office Action fails to meet its goal. See MPEP 706 (“the goal of examination is to clearly articulate any rejection ...” The ground of a rejection should be “fully and clearly stated.” MPEP 707.07(d). While the claim rejections are apparently set forth more specifically, by being set forth in separate paragraphs, the Office Action still fails to enumerate which arguments are applied to which claims. Again, this has made it impossible for the Applicant to determine the exact basis of rejection for each of the claims. A prima facie case of obviousness has not been properly made out for at least this reason. Therefore, all claims remaining in the case are allowable for at least this reason.

Claim 17. Even if Applicant could determine which section of the Office Action is directed to the rejection of Claim 17, a prima facie case of obviousness still would not be made out, because the Office Action simply does not make out a prima facie case of obviousness with respect to all elements of Claim 17. For example, Claim 17 recites, in

part, firmware comprising control logic to calculate a packet error ration (PER) value for said data packets. The Office Action purports to address this limitation at page 2 of the Office Action, but does not provide any guidance to where this element may be purportedly found in either of the references.

The Office Action again addresses this element at p. 3 of the Office Action, citing element 52 of Haartssen. Haartssen discloses in Fig. 5 that element 52 is a channel condition processor. The channel condition processor 52 does not calculate a PER. Instead, the channel condition processor 52 analyzes one or more quality measures – it does not update or calculate the quality measures. (See Haartssen, p. 20). The channel condition processor 52 does not calculate a PER; the Office Action has thus failed to make a prima facie case of obviousness regarding such element of Claim 17. Accordingly, the Office Action has failed to make out a prima facie case of obviousness, for at least this reason, with respect to Claim 17.

The widespread paraphrasing of Applicant's claims is another reason that the Office Action fails to set forth a prima facie case of obviousness. It is the exact claim language, not a paraphrase of that language, that must be shown in the prima facie case of obviousness. Regarding Claim 17, applicant assumes that the Office Action admits that the Haartssen reference does not disclose the final element of Claim 17 by the following statement set forth at p. 5 of the Office Action: “[n]ot specifically described in detail by Haartssen is the step of varying data transmission rate means [sic] responsive to error conditions.” This statement is apparently a paraphrase of a portion of the final element of Claim 17. In reality, Claim 17 recites “step up data transfer rate at which future data packets are to be transmitted if said PER value is greater than a drop rate threshold and if an intermittent interference is detected.”

The Office Action states that its improperly paraphrased version of the quoted portion of Claim 17 is made out at Figs. 6a – 6b and Fig. 8, and related description, of Mayor. The Office Action states that “data transfer parameters comprising data rate/type, packet length, signal bandwidth, FEC scheme are adaptively varied based on current channel intermittent interference or noisy conditions to optimize radio frequency resources required for signal transmission.” (Office Action, p. 5). While this statement may meet the paraphrased element of “varying data transmission rate responsive to error conditions,” (Applicant does not herein admit such statement, but assumes it for the sake of arguing this point), it simply does not disclose, suggest nor teach “step up data transfer rate at which future data packets are to be transmitted if said PER value is greater than a drop rate threshold and if an intermittent interference is detected.”

Independent Claim 17 is allowable for at least this reason. Dependent Claims 18 – 22 and 27 – 28, which depend from Claim 17, are also allowable for at least this reason.

All independent claims. The claim language of Claim 17 clearly recites “determine whether an intermittent interference is affecting said PER value” and “if an intermittent interference is detected.” The language of Claims 29 and 43 clearly recite “detecting if intermittent interference is present on the wireless channel” and “if intermittent interference is detected.” Claim 34 clearly recites “if the interference is intermittent.” The Office Action fails to make out a prima facie case of obviousness regarding these elements.

The Office Action cites page 2, para. 3 through page 3, para. 2 of Haartssen for the following proposition: “[n]oise abatement means, such as interference avoidance (e.g., FHSS or non-FHSS) and suppression (e.g., DSSS), are described.” (Office Action, p. 2). This same section of Haartssen is cited at p. 2 to purportedly disclose “determine

whether an intermittent noise is affecting said PER value,” and “determining whether said intermittent noise is due to a frequency hopping spread spectrum (FHSS) wireless device.” The same section of Haartssen is cited at p. 3 of the Office Action as purportedly disclosing numerous other elements of Applicant’s claims, without specifying which claims are being addressed.

The cited section (page 2, para. 3 through page 3, para. 2) of Haartssen merely discloses known spread spectrum techniques and does not in any way disclose, teach or suggest “determine whether an intermittent noise is affecting said PER value,” or “determining whether said intermittent noise is due to a frequency hopping spread spectrum (FHSS) wireless device,” or “if an intermittent interference is detected,” or “detecting if intermittent interference is present on the wireless channel,” or “if the interference is intermittent.”

The cited portion of Haartssen discloses that Direct Sequence Spread Spectrum (DSSS) is an example of interference suppression while Frequency Hopped Spread Spectrum (FHSSS) is a technique based on interference avoidance. Such disclosure of known methods does not in any way disclose, teach or suggest the limitations of the claims presented by Applicant. Indeed, both DSSS and FHSSS are similarly disclosed by Applicants. See paragraph 16 (“The 802.11(b) communication standard uses direct-sequence spread spectrum (DSSS). Bluetooth technology is based on FHSS.”) Thus, the cited portion of Haartssen merely discloses that which Applications disclose as known – the DSSS and FHSS techniques. It simply does not disclose, teach or suggest the limitations of Applicants claims.

Accordingly, even if Haartssen and Mayor were to be combined, the combination would not disclose or suggest every aspect of the claims. Independent Claim 17 is

allowable for at least this reason. Dependent Claims 18 – 22 and 27 – 28, which depend from Claim 17, are also allowable for at least this reason. Independent Claim 29, as well as dependent Claims 30 – 33, which depend from Claim 29, are also allowable for at least this reason. Independent Claim 34, along with dependent Claims 35 – 42, which depend from Claim 34, are also allowable for at least this reason. In addition, independent Claim 43 along with its dependent claim, Claim 44, are also allowable for at least this reason.

Claim 29. Claim 29 recites, in part, “if intermittent interference is detected, increasing the transmission rate for the wireless channel while maintaining the packet length.” Again, because the rejections for each claim were not specifically enumerated in the Office Action, it has been impossible for the Applicant to determine which, if any, of the arguments in the Office Action are directed at Claim 29. It is assumed, for purposes of this response, that Mayor is relied upon in order to purportedly disclose “increasing the transmission rate for the wireless channel while maintaining the packet length.” That is, the Office Action admits that Haartssen does not disclose “varying the transmission rate.” (See Office Action, p. 5). However, Mayor does not teach, suggest, nor disclose the portion of Claim 29 that is quoted above.

Neither Figs. 6a – 6b, nor Fig. 8, along with its related description in Mayor, discloses , “if intermittent interference is detected, increasing the transmission rate for the wireless channel while maintaining the packet length.” Mayor discloses in the discussion of Figs. 6a and 6b that a DSSS signal may be interfered with. Fig. 6b shows a DSSS signal with six interferes. However, such discussion of Mayor does not disclose, teach or suggest detecting whether the interference is intermittent. See Mayor, Col. 12, lines 19 – 24).

The discussion of Fig. 8 in Mayor spans from col. 13, line 65 through Col. 17, line 47. Applicant requests that the Examiner specify with more particularity exactly what is the basis in that portion of Mayor for the rejection of Claim 29. The cited section of Mayor indicates that, based on channel conditions as well as operational constraints and requirements, certain SSV parameters are selected to construct another SSV (SSV_{constr}). Mayor, Col. 14, l. 3 – 14. The present conditions of the channel, including the interference level as indicated by a spectrum survey, may be determined. Id. For the constructed SSV, the frequency and code channels may be selected in response to the observed interference levels. Id. The packet length may be selected as a function of the received power signal. Mayor, Col. 14, ll. 21 – 23. Selection of the packet length must take into account the BER as well as the acceptable packet reliability. Mayor, Col. 14, ll. 31 – 37; see also Table 1. The Applicant has been unable to find any disclosure or teaching of “if intermittent interference is detected, increasing the transmission rate for the wireless channel while maintaining the packet length.” The Office Action has thus failed to properly make a prima facie case of obviousness regarding Claim 29, and Claim 29 is allowable for at least this reason. Dependent Claims 30 – 33, which depend from Claim 29, are also allowable for at least this reason.


Accordingly, all independent claims are in condition for allowance. For at least the foregoing reasons, all dependent claims are also in condition for allowance.

Applicant respectfully submits that the applicable rejections have been overcome and must all be withdrawn. All claims are therefore in condition for allowance.

Please charge any shortages and credit any overcharges to our Deposit Account No. 02-2666.

Respectfully submitted,

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